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## On the Staphylinidae of the Greek island Kos, with an appendix on Carabidae and additional records from other islands (Insecta: Coleoptera)

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**A b s t r a c t :** A study of 567 specimens of Staphylinidae collected in the Greek island Kos in April 2012 and December 2016 yielded 54 species, among them five first records from Greece. One of them is *Quedius curtidens* SMETANA, 1967, a species previously known only from Adana province (Turkey) and also reported from Lebanon, Syria, and Israel for the first time; its distribution is mapped. A checklist of the species recorded from Kos is provided. The known staphylinid fauna is represented by 58 species and shows strong affinities to the fauna of the close Turkish mainland. It is primarily composed of widespread West Palaearctic (38 %), East Mediterranean (38 %), South Anatolian (11 %), or widespread Mediterranean (7 %) species. In an appendix, records of 15 species are reported from Cyprus, Rhodos, Samos, and Lesbos. Moreover, 29 species of Carabidae (177 specimens) are reported from Kos; eight of these species are recorded from the Aegean Islands for the first time.

**K e y   w o r d s :** Coleoptera, Staphylinidae, Carabidae, Palaearctic region, East Mediterranean, Greece, Kos, Aegean Islands, taxonomy, diversity, zoogeography, endemism, island biogeography, new records, checklist.

### Introduction

The third largest of the Greek Dodecanese Islands with an area of approximately 290 km<sup>2</sup>, Kos is situated in the southeastern Aegean Sea. The nearest distance to the southwestern Turkish coast (Muğla), to which it was connected until the Pleistocene (TRIANTIS & MYLONAS 2009), is less than 5 km. The island has only one major mountain, the Dikeos range with the highest elevation at 843 m. While most of the area at lower altitudes is characterized by arid habitats, populated places, and more or less intensely cultivated land, rather extensive pine and cedar forests are still present at intermediate and higher altitudes. There are no permanent streams or rivers on the island; major wetlands are a salt lake (Alikes) in the north and a swamp (Psalidi) with mainly reed vegetation in the northeast. The vegetation of the area near the summit of Dikeos is characterized by cedar, more or less scattered shrubs on the steep slopes, grazed stony grassland, and phrygana.

The Staphylinidae faunas of several larger East Mediterranean islands (Crete, Cyprus, Rhodos, Lesbos, Samos, Chios, Karpathos) have been addressed recently. The known overall diversities and numbers of endemic species are as follows: Crete (total species number not assessed; 67 named plus several unnamed species endemic), Cyprus (325

species in total, 27 of them endemic), Rhodos (131 species; eleven species endemic, three of them unnamed), Lesbos (201 species; eleven endemic species, nine of them named), Samos (140 species in total; 18 species endemic, seven of them undescribed), Karpathos (69 species; eleven species endemic, three of them undescribed), Chios (43 species; two species endemic, one of them undescribed). The figures for total species numbers are based on ASSING (2005, 2013a-b, 2015a-c, 2016a-b) and ASSING & WUNDERLE (2001). They include recent additions (Assing 2017a, b) and the additional records reported in the appendix of this paper; those for Cyprus are based also on SCHÜLKE & SMETANA (2015). Unlike the figures for endemic species, those for total species numbers are strongly biased, especially owing to different study intensities (number of collectors; duration of study period(s) and number of field trips) and different study seasons. For more details regarding species numbers, numbers of endemic species, and other island-related aspects of previously studied East Mediterranean islands see the articles cited above.

Practically nothing was previously known about the staphylinid fauna of Kos. The only records I have been able to find are those of *Medon dilutus pythonissa* (SAULCY, 1865), *M. semiobscurus* (FAUVEL, 1875), and *M. subfusculus* FAGEL, 1969 (ASSING 2009b, 2013c), *Micranops pilicornis* (BAUDI, 1870) (ANLAŞ & FRISCH 2014), *Scopaeus debilis* (HOCHHUTH, 1851) (FRISCH 1999), *Megalinus flavocinctus* (HOCHHUTH, 1849) (BORDONI 2014), and of *Myrmecopora fugax* (ERICHSON, 1839) (ASSING 1997).

In order to explore the staphylinid fauna of Kos, a field trip was conducted by the author in December 2016. This field trip focused on the autochthonous epigaeic fauna of various forest, shrub, grassland, and ruderal habitats. Special habitats such as compost and dung, which generally host a great diversity of widespread Staphylinidae, were largely neglected. Additional material came from a short field trip conducted by Heinrich Meybohm in April 2012.

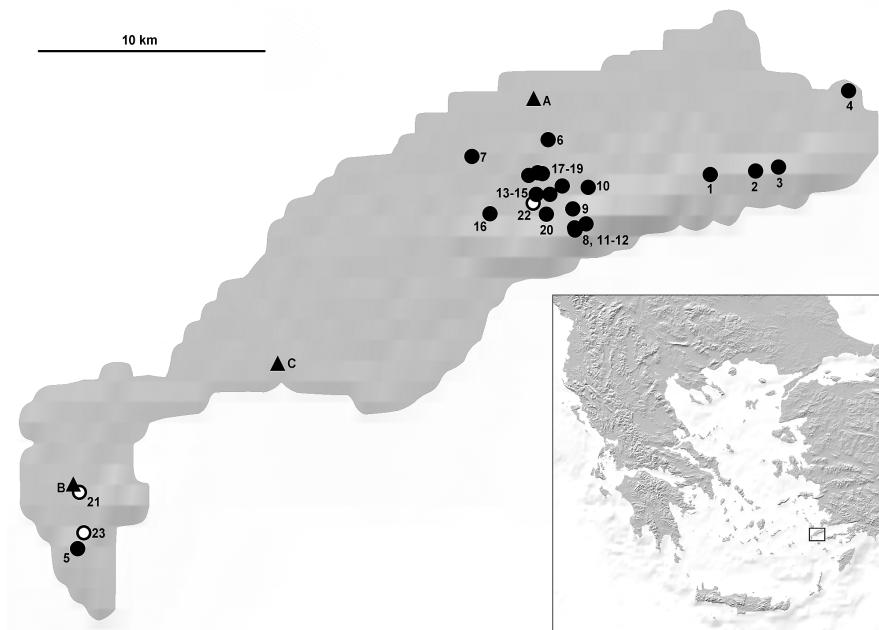
In an appendix, additional records of Staphylinidae from Cyprus, Rhodos, Samos, and Lesbos are reported, and the Carabidae collected during the 2016 field trip are listed. The section on Carabidae is authored by Thomas Forcke, Keltern.

## Material and methods

The material treated in this study is deposited in the following public and private collections:

- MNHUB.....Museum für Naturkunde der Humboldt-Universität, Berlin (J. Frisch)
- NMP.....National Museum of Natural History, Praha (J. Hájek)
- cApf.....private collection Wolfgang Apfel, Eisenach
- cAss.....author's private collection
- cBra.....private collection Volker Brachat, Geretsried
- cFel.....private collection Benedikt Feldmann, Münster
- cFor.....private collection Thomas Forcke, Keltern
- cMey.....private collection Heinrich Meybohm, Großhansdorf

The Pselaphinae, Scydmaeninae, and Carabidae are all deposited in cBra, cMey, and cFor, respectively. Reference material of the remaining species is deposited in MNB and cAss. The maps were created using MapCreator 2.0 (primap) software.



**Map 1:** Geographic position of Kos (lower right) and sample plots in Kos. Black circles: localities of the 2016 field trip where Staphylinidae were found; triangles: plots of the 2016 field trip where only Carabidae, but no Staphylinidae were found; white circles: localities of the 2012 field trip (leg. Meybohm). The numbers and letters correspond to those given in Tab. 1.

## Results

During the time of the 2016 field trip, Kos was unusually cold for the season. Moreover, there had been only little precipitation in the preceding months, so that all the temporary streams were dry. Consequently, the conditions for recording Staphylinidae were not optimal, particularly not regarding riverine and other wetland fauna, as well as the species typically collected from under stones, such as myrmecophiles.

In all, 514 adult specimens of Staphylinidae were collected in various localities distributed across most of the island (Map 1) during the 2016 field trip. Additional 53 specimens came from the field trip conducted by Heinrich Meybohm in 2012. The material is composed of 54 species, two of them possibly unnamed (*Atheta (Mocytia)* sp. 1, *Kenotyphlus* sp.), three of them previously recorded, and the remainder reported from Kos for the first time (Tab. 1). Five of these species (*Amarochara wunderlei*; *Atheta laevigata*; *Oligota anatolica*; *Leptomastax orousseti*, *Quedius curtidens*) even represent first records from Greece. Of special interest is the record of *Quedius curtidens*, which had not been recorded since the original description, which is based on a unique holotype. Including the previously recorded species, the currently known staphylinid fauna of the island includes 58 species (see checklist), a diversity intermediate between figures for Chios and Karpathos.

Most of the material was collected by sifting. Owing to the weather conditions, only very

few specimens (nearly all *Ocyphus*; *Xantholinus rufipennis*; *Caloderina hierosolymitana*) were found under stones. This may also be the reason why not a single species associated with ants was recorded.

Aside perhaps for the unidentified endogean species of *Kenotyphlus* COIFFAIT, 1957, island endemics are unknown from Kos, a significant difference to all the previously studied Aegean islands. Exclusive of the species not positively identified at species level (i.e., excluding *Ochthephilum brevipenne*, *Atheta (Mocyta)* sp. 1, *Kenotyphlus* sp.), the distribution types indicated in the checklist are represented in fauna of Kos as follows: 21 species (38 %) are West Palaearctic, 21 (38 %) East Mediterranean, six (11 %) South Anatolian, and four (7 %) widespread Mediterranean. The remaining distribution types are represent by only one or two species and thus negligible. Without exception, all the identified species recorded from Kos are shared with the fauna of Turkey (but note that the presence of *A. clientula* in Turkey is only inferred; see checklist), 36 (65 %) with Cyprus, 36 (65 %) with Lesbos, 32 (58 %) with Rhodos, 29 (53 %) with Samos, 28 (51 %) with Karpathos, 25 (45 %) with Crete, and only 18 (33 %) with Chios. It can be concluded that these figures strongly depend on both geographic vicinity and the general diversity known from the compared islands. For diversity figures of these islands see the introduction.

**Tab. 1:** Staphylinidae collected in Kos in December 2016 by the author (samples 1-20, A-C) and in April 2012 by Heinrich Meybohm (samples 21-23). The letters A-C indicated plots where only Carabidae, but no Staphylinidae were found. In the localities column, the number of specimens is given in parentheses behind the locality number.

Localities/samples: **1:** 4 km SW Kos, 36°51'14"N, 27°16'11"E, 410 m, pine forest, litter and bark sifted, 22.XII.2016; **2:** 4 km SSW Kos, 36°51'19"N, 27°17'33"E, 330 m, pine forest near dry temporary stream, litter and bark sifted, 22.XII.2016; **3:** 4 km S Kos, 36°51'25"N, 27°18'14"E, 380 m, pine forest with *Juncus*, litter, grass roots, and moss sifted, 22.XII.2016; **3a:** same data, but soil washed; **4:** 4.6 km SSE Kos, 36°53'15"N, 27°20'21"E, 2 m, wetland with reed, litter sifted, 22.XII.2016; **5:** S Kefalos, 36°42'12"N, 26°57'07"E, 380 m, pine forest, deep dry litter sifted, 23.XII.2016; **6:** 13 km WSW Kos, 36°51'41"N, 27°08'59"E, 25 m, stony pasture, under stones, 23.XII.2016; **7:** 9.5 km WSW Kos, 36°52'05"N, 27°11'17"E, 40 m, field margin, under stones, 23.XII.2016; **8:** Oros Dikeos, 36°49'57"N, 27°12'05"E, 710 m, calcareous slope, litter under shrubs sifted, 24.XII.2016; **8a:** same data, but cedar litter sifted; **9:** W Oros Dikeos, SW Zia, 36°50'25"N, 27°12'02"E, 420 m, track margin, under stones, 24.XII.2016; **10:** NW Oros Dikeos, Zia env., 36°50'56"N, 27°12'30"E, 310 m, pine forest, litter sifted, 24.XII.2016; **11:** Oros Dikeos, 36°49'54"N, 27°12'06"E, 770 m, calcareous north slope, shrub litter and moss sifted, 25.XII.2016; **12:** Oros Dikeos, 36°50'03"N, 27°12'26"E, 835 m, peak region, litter of herbs and cedar between rocks and beneath cedar sifted, 25.XII.2016; **13:** 10.5 km WSW Kos, 1.5 km W Zia, 36°50'46"N, 27°11'20"E, 190 m, pasture, under stones, 25.XII.2016; **13a:** same data, but soil under old horse dung sifted; **13b:** same data, but litter of *Quercus ilex* at margin of pasture sifted; **14:** 9.6 km WSW Kos, NW Zia, 36°50'58"N, 27°11'43"E, 210 m, margin of olive grove with old oak and other broad-leaved trees, leaf litter sifted, 26.XII.2016; **14a:** same data, but soil washed; **14b:** same data, but grassy road margin, soil and roots sifted; **15:** 10.8 km WSW Kos, W Zia, 36°50'46"N, 27°10'56"E, 160 m, dry stream valley with broad-leaved trees, leaf litter sifted, 26.XII.2016; **16:** S Pili, 36°50'18"N, 27°09'32"E, 140 m, dry stream valley, leaf litter beneath *Quercus ilex* sifted, 26.XII.2016; **17:** 3 km ENE Pili, 36°51'16"N, 27°11'07"E, 120 m, oak and bushes in abandoned arable land, litter sifted, 27.XII.2016; **18:** 3 km ENE Pili, 36°51'17"N, 27°10'58"E, 110 m, abandoned fields, under stones, 27.XII.2016; **18a:** same data, but 29.XII.2016; **19a:** same data, but arable land, litter of bushes sifted; **20:** 2.7 km ESE Pili, Paleo Pili, 36°50'17"N, 27°11'14"E, 300 m, terraced pasture with sparse grass, under stones, 29.XII.2016; **21:** 2 km S Kephalos, 36°43'34"N, 26°57'10"E, 150 m, 11.IV.2012; **21a:** same data, but 10.IV.2012; **22:** Paleo Pili env., 36°50'33"N, 27°10'50"E, 190 m, 13.IV.2012; **23:** 4 km S Kephalos, 36°42'35"N, 26°57'18"E, 250 m, 15.IV.2012.

**A:** W Tigkaki, 36°53'05"N, 27°10'51"E, 5 m, field margin near salt lake, under large stones, 23.XII.2016; **Aa:** same data, but 27.XII.2016; **B:** 2 km SW Kefalos, 36°43'46"N, 26°56'59"E, 150 m, pasture, under stones, 29.XII.2016; **C:** 4 km SW airport, 36°46'41"N, 27°03'08"E, 120 m, field margin near road, under stones, 29.XII.2016.

Footnotes: <sup>1)</sup> identification based on females and consequently tentative; <sup>2)</sup> according to Vladimir Gusarov (pers. comm.) a widespread and common, but possibly undescribed species; <sup>3)</sup> not seen by Vladimir Gusarov.

Species	Localities/samples
<b>P r o t e i n i n a e</b>	
<i>Proteinus utrarius</i> ASSING, 2004	17(1)
<b>P s e l a p h i n a e</b>	
<i>Faronus distinctus</i> BESUCHET, 1999	8(3), 11(19), 12(2), 22(1)
<i>Faronus parallelus</i> BESUCHET, 1958	11(2), 12(2)
<b>T a c h y p o r i n a e</b>	
<i>Mycetoporus glaber glaber</i> (SPERK, 1835)	1(1)
<i>Mycetoporus reichei</i> (PANDELLÉ, 1869)	1(1), 2(2), 8(1), 11(1), 15(1), 17(3), 22(1)
<i>Mycetoporus simillimus</i> FAGEL, 1965	1(1), 8(2), 11(1), 12(1)
<i>Sepedophilus immaculatus</i> (STEPHENS, 1832)	14(1)
<i>Sepedophilus obtusus</i> (LUZE, 1902)	22(1)
<i>Tachyporus caucasicus</i> (KOLENATI, 1846)	8a(1), 14(4), 16(27), 22(2)
<i>Tachyporus nitidulus</i> (FABRICIUS, 1781)	1(31), 2(5), 3(5), 8(13), 8a(14), 10(3), 11(26), 12(45), 13a(1), 13b(4), 14(5), 14b(6), 15(5), 16(11), 17(8), 19a(3), 22(1)
<b>A l e o c h a r i n a e</b>	
<i>Amarochara wunderlei</i> ASSING, 2003	22(2)
<i>Atheta aeneicollis</i> (SHARP, 1869)	13(1), 16(1)
<i>Atheta amicula</i> (STEPHENS, 1832)	23(1)
<i>Atheta laevigata</i> (HOCHHUTH, 1849)	14(4)
<i>Atheta triangulum</i> (KRAATZ, 1856)	11(1)
<i>Atheta (Mocytia) clientula</i> (ERICHSON, 1839)	15(5)
<i>Atheta (Mocytia) sp. 1</i> <sup>2)</sup>	2(1), 13b(4), 14(12), 15(14), 17(7), 19a(1)
<i>Atheta (Mocytia) spp.</i> <sup>3)</sup>	21(3), 22(5), 23(1)
<i>Caloderina hierosolymitana</i> (SAULCY, 1865)	9(1)
<i>Cordalia obscura</i> (GRAVENHORST, 1802)	22(1)
<i>Cypha tenebricosa</i> ASSING, 2004	2(1), 14(1)
<i>Geostiba maxiana</i> (TIKHOMIROVA, 1973)	8(1), 11(8), 12(5), 22(2), 23(1)
<i>Geostiba oertzeni</i> (EPPELSHEIM, 1888)	11(16)
<i>Liogluta longiuscula</i> (GRAVENHORST, 1802)	12(15)
<i>Oligota anatolica</i> ASSING, 2003	11(2), 12(2)
<i>Oxypoda lurida</i> WOLLASTON, 1857	3(1), 11(1), 22(2)
<b>O x y t e l i n a e</b>	
<i>Anotylus clypeonitens</i> (PANDELLÉ, 1867)	12(1), 14(37)
<i>Anotylus inustus</i> (GRAVENHORST, 1806)	22(1)
<i>Anotylus sculpturatus</i> (GRAVENHORST, 1806)	1(1)
<i>Thinodromus bodemeyeri</i> (BERNHAUER, 1902)	22(2)

Species	Localities/samples
<b>S t e n i n a e</b>	
<i>Stenus brunnipes lepidus</i> WEISE, 1875	13a(1)
<i>Stenus maculiger</i> WEISE, 1875	22(1)
<i>Stenus turbulentus</i> BONDROIT, 1912	21(5), 21a(4)
<b>L e p t o t y p h l i n a e</b>	
<i>Kenotyphlus</i> sp. n. (♀)	3a(1), 14a(2)
<b>S c y d m a e n i n a e</b>	
<i>Leptomastax orousseti</i> CASTELLINI, 1996	1(3), 2(1), 5(1), 8(1), 11(1), 12(2), 21(3), 23(1)
<b>P a e d e r i n a e</b>	
<i>Astenus thoracicus</i> (BAUDI DI SELVE, 1857)	22(1)
<i>Domene stilocina</i> (ERICHSON, 1840)	13a(2)
<i>Medon dilutus pythonissa</i> (SAULCY, 1865)	1(1), 2(9), 5(7), 10(1), 14(17), 16(1), 19a(4), 21(1), 22(3)
<i>Medon semiobscurus</i> (FAUVEL, 1875)	2(8), 14(2), 17(1), 22(1)
<i>Medon subfusculus</i> FAGEL, 1969 <sup>1)</sup>	14(2)
<i>Ochthephilum brevipenne</i> (MULS. & REY, 1861) <sup>1)</sup>	4(1)
<b>S t a p h y l i n i n a e</b>	
<i>Ocyphus curtipennis</i> MOTSCHULSKY, 1849	18(1)
<i>Ocyphus mus</i> (BRULLÉ, 1832)	6(1), 7(1), 13(1), 15(1)
<i>Ocyphus orientis</i> SMETANA & DAVIES, 2000	18a(2), 19(5), 20(2)
<i>Ocyphus sericeicollis</i> (MENETRIES, 1832)	13(1)
<i>Othius laeviusculus</i> STEPHENS, 1833	22(2)
<i>Othius lapidicola</i> MÄRKEL & KIESENWETTER, 1848	1(2), 3(1), 8(9), 11(1), 12(4), 23(1)
<i>Quedius curtidens</i> SMETANA, 1967	3(1)
<i>Quedius humeralis</i> STEPHENS, 1832	22(1)
<i>Quedius nemoralis</i> BAUDI DI SELVE, 1848	14(2), 23(1)
<i>Quedius nivicola</i> KIESENWETTER, 1958	17(1)
<i>Quedius scintillans</i> (GRAVENHORST, 1806)	21(1)
<i>Tasgius morsitans</i> (ROSSI, 1790)	2(1)
<i>Xantholinus rufipennis</i> ERICHSON, 1839	18(1)
<i>Xantholinus varnensis</i> COIFFAIT, 1972	17(1)

### Checklist of the Staphylinidae recorded from Kos

The species currently known from Kos (Ko) are listed below. In addition, information on the general distribution (Dis) and the presence in Turkey (TR) and on other surveyed East Mediterranean islands (TR = Turkey; CY = Cyprus; R = Rhodos; L = Lesbos; S = Samos; C = Chios; Ka = Karpathos; CR = Crete) is provided. The general distributions are abbreviated as follows: CA = Caucasus region and Anatolia; E = endemic; EM = East Mediterranean; M = Mediterranean; P = Palaearctic (native); R = restricted; SA = South Anatolian; WP = West Palaearctic. The assignment to these categories is in some cases somewhat tentative; expansive Holo- or Ponto-Mediterranean species are

categorized as West Palaearctic. For more information on the staphylinid faunas of the other East Mediterranean islands see ASSING (2005, 2013a-b, 2015a-c, 2016a-b) and ASSING & WUNDERLE (2001). The record of *Mycetoporus simillimus* from Cyprus is based on SCHÜLKE (pers. comm.).

*Atheta clientula* was originally described from Corfu. According to Vladimir Gusarov (pers. comm.), who revised the type material, this species has been misinterpreted by all subsequent authors (confusion with *A. pulchra* (Kraatz, 1856)) and, aside from Corfu, reliable records are currently known only from Israel, Lesbos, and Kos. Nevertheless, these records suggest that *A. clientula* is widespread in the East Mediterranean and that it is present also in Turkey.

Species	Dis	K o	T R	C Y	R	L	S	C	K a	C R
<i>Proteinus utrarius</i> ASSING, 2004	EM	●	●		●	●	●	●	●	
<i>Faronus distinctus</i> BESUCHET, 1999	SA	●	●		●	●	●			
<i>Faronus parallelus</i> BESUCHET, 1958	EM	●	●	●						●
<i>Mycetoporus glaber glaber</i> (SPERK, 1835)	WP	●	●	●						●
<i>Mycetoporus reichei</i> (PANDELLÉ, 1869)	WP	●	●	●	●	●	●	●		●
<i>Mycetoporus simillimus</i> FAGEL, 1965	EM	●	●	●	●	●	●	●	●	●
<i>Sepedophilus immaculatus</i> (STEPHENS, 1832)	WP	●	●	●	●	●	●		●	
<i>Sepedophilus obtusus</i> (LUZE, 1902)	WP	●	●	●		●	●			
<i>Tachyporus caucasicus</i> (KOLENATI, 1846)	WP	●	●	●	●	●	●			●
<i>Tachyporus nitidulus</i> (FABRICIUS, 1781)	P	●	●	●	●	●	●	●	●	●
<i>Amarochara wunderlei</i> ASSING, 2003	SA	●	●							
<i>Atheta aeneicollis</i> (SHARP, 1869)	WP	●	●	●	●	●	●	●	●	●
<i>Atheta amicula</i> (STEPHENS, 1832)	P	●	●	●		●				●
<i>Atheta laevigata</i> (HOCHHUTH, 1849)	CA	●	●							
<i>Atheta triangulum</i> (KRAATZ, 1856)	WP	●	●	●						
<i>Atheta (Mocytia) clientula</i> (ERICHSON, 1839)	EM	●	?			●				
<i>Atheta (Mocytia) sp. 1</i>	?	?	?	?	?		?			?
<i>Caloderina hierosolymitana</i> (SAULCY, 1865)	M	●	●	●						●
<i>Cordalia obscura</i> (GRAVENHORST, 1802)	WP	●	●	●		●				
<i>Cypha tenebricosa</i> ASSING, 2004	SA	●	●		●		●	●		
<i>Geostiba maxiana</i> (TIKHOIROVA, 1973)	EM	●	●		●	●	●	●		
<i>Geostiba oertzeni</i> (EPPELSHEIM, 1888)	EM	●	●		●	●	●		●	●
<i>Liogluta longiuscula</i> (GRAVENHORST, 1802)	WP	●	●	●	●	●	●	●		●
<i>Myrmecopora fugax</i> (ERICHSON, 1839)	M	●	●	●	●		●		●	●
<i>Oligota anatolica</i> ASSING, 2003	SA	●	●							
<i>Oxypoda lurida</i> WOLLASTON, 1857	WP	●	●	●		●	●	●	●	●
<i>Anotylus clypeonitens</i> (PANDELLÉ, 1867)	WP	●	●	●	●	●			●	●
<i>Anotylus inustus</i> (GRAVENHORST, 1806)	WP	●	●	●	●	●	●	●	●	●
<i>Anotylus sculpturatus</i> (GRAVENHORST, 1806)	WP	●	●	●	●	●				●
<i>Thinodromus bodemeyeri</i> (BERNHAUER, 1902)	EM	●	●	●					●	
<i>Stenus brunnipes lepidus</i> WEISE, 1875	EM	●	●	●	●	●	●	●	●	
<i>Stenus maculiger</i> WEISE, 1875	WP	●	●		●		●		●	

Species	Dis	K o	T R	C Y	R	L	S	C	K a	C R
<i>Stenus turbulentus</i> BONDROIT, 1912	EM	●	●	●	●	●	●	●	●	●
<i>Kenotyphlus</i> sp. n.	E?	●								
<i>Leptomastax orousseti</i> CASTELLINI, 1996	SA	●	●							
<i>Astenus thoracicus</i> (BAUDI DI SELVE, 1857)	EM	●	●	●	●	●	●			●
<i>Domene stilocina</i> (ERICHSON, 1840)	EM	●	●	●	●		●		●	●
<i>Medon dilutus pythonissa</i> (SAULCY, 1865)	EM	●	●	●	●	●	●	●	●	●
<i>Medon semiobscurus</i> (FAUVEL, 1875)	EM	●	●		●	●	●	●		
<i>Medon subfuscus</i> FAGEL, 1969	SA	●	●				●			
<i>Micranops pilicornis</i> (BAUDI DI SELVE, 1870)	EM	●	●	●	●	●				●
<i>Ochthephilum brevipenne</i> (MULSANT & REY, 1861)	M	●			●	●				
<i>Scopaeus debilis</i> (HOCHHUTH, 1851)	WP	●	●	●		●				
<i>Megalinus flavocinctus</i> (HOCHHUTH, 1849)	WP	●	●	●						
<i>Ocyphus curtipennis</i> MOTSCHULSKY, 1849	EM	●	●		●	●				
<i>Ocyphus mus</i> (BRULLE, 1832)	EM	●	●	●	●	●	●	●	●	●
<i>Ocyphus orientis</i> SMETANA & DAVIES, 2000	EM	●	●	●	●					●
<i>Ocyphus sericeicollis</i> (MENETRIES, 1832)	M	●	●	●		●		●		●
<i>Othius laeviusculus</i> STEPHENS, 1833	M	●	●	●	●	●			●	●
<i>Othius lapidicola</i> MÄRKEL & KIESENWETTER, 1848	WP	●	●		●	●	●	●	●	●
<i>Quedius curtidens</i> SMETANA, 1967	EM	●	●							
<i>Quedius humeralis</i> STEPHENS, 1832	WP	●	●	●	●	●			●	●
<i>Quedius nemoralis</i> BAUDI DI SELVE, 1848	WP	●	●	●	●	●	●	●	●	●
<i>Quedius nivicola</i> KIESENWETTER, 1958	EM	●	●				●			
<i>Quedius scintillans</i> (GRAVENHORST, 1806)	WP	●	●	●	●					●
<i>Tasgius morsitans</i> (ROSSI, 1790)	WP	●	●							
<i>Xantholinus rufipennis</i> ERICHSON, 1839	EM	●	●	●	●	●	●	●	●	●
<i>Xantholinus varnensis</i> COIFFAIT, 1972	EM	●	●		●	●	●			●

### Notes on some species

#### *Amarochara wunderlei* ASSING, 2003

Comment: This rare species was previously known only from Antalya and Aydın provinces in Southwest Turkey (ASSING 2003, 2007a). The two males listed in Tab. 1 represent the first record from Greece.

#### *Atheta laevigata* (HOCHHUTH, 1849)

Comment: The previously known distribution of *A. laevigata* was confined to Turkey and Azerbaijan (SCHÜLKE & SMETANA 2015). The specimens from Kos (Tab. 1) represent the first record from Greece.

#### *Oligota anatolica* ASSING, 2003

Comment: This species had been recorded from the Turkish provinces Izmir,

Denizli, Antalya, Mersin, Kahramanmaraş, and Adiyaman, as well as from Israel (ASSING 2003, 2006, 2007b; KAPP 2004). The specimens from Kos (Tab. 1) represent the first record from Greece.

***Leptomastax orousseti* CASTELLINI, 1996**

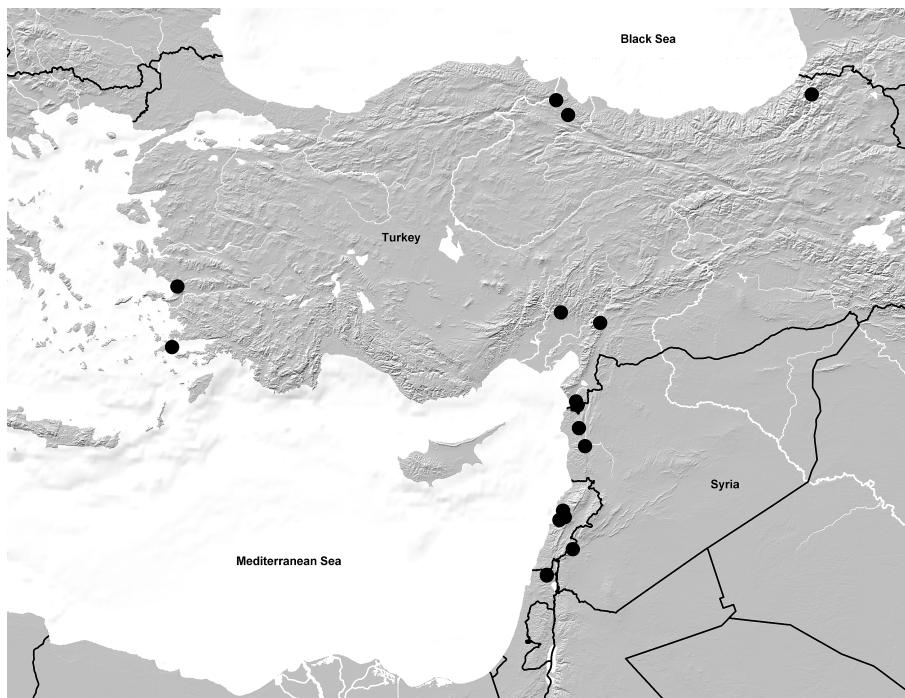
Comment: This species had been recorded only from Turkey (SCHÜLKE & SMETANA 2015), where the distribution is confined to Aydın and Muğla provinces in southwestern Anatolia (MEYBOHM pers. comm.).

***Othius lapidicola* MÄRKEL & KIESENWETTER, 1848**

Comment: Except for one female from sample 12, all the specimens listed in Tab. 1 are brachypterous.

***Quedius curtidens* SMETANA, 1967 (Map 2)**

Type material examined: Holotype ♂: "Suluhan, Toros, Anat. 11.VIII.47, Exp. N. Mus. ČSR. / Holotypus *Quedius curtidens* / 1965 Smetana det. / *Quedius curtidens* n. sp., Smetana det. 1965 / Mus. Nat. Pragae, Inv. 19644" (NMP).



Map 2: Distribution of *Quedius curtidens*.

Additional material examined: Turkey: 1♂, Artvin, 800 m, 7.VI.1986, leg. Besuchet & Löbl (NMP); 1♂, Samsun, 33 km SW Samsun, road Kavak to Asarcık, 7 km SE Kavak, 41°03'N, 36°07'E, 470 m, *Quercus-Carpinus* forest, litter sifted, 20.VII.2008, leg. Assing (eAss); 3♂♂, 2♀♀, Samsun, 41 km W Samsun, 27 km S Bafra, 41°19'N, 35°51'E, 220 m, stream

valley, beech forest with scattered alder, litter sifted, 21.VII.2008, leg. Assing (cAss); 1♂, Izmir, Meryemana - Selçuk ["Gelçük"], 500 m, 9.V.1975, leg. Besuchet & Löbl (NMP); 1♀, Kahramanmaraş, 34 km SSW Kahramanmaraş, Doluca, 37°24'N, 36°42'E, 940 m, 4.V.2005, leg. Brachat & Meybohm (cAss); 1♀, Hatay, 19 km S Antakya, SW Şenköy, 36°02'N, 36°07'E, 880 m, pasture, 5.IV.2004, leg. Assing (cAss); 1♀, Hatay, Kislak ["Kislah"] - Şenköy, 800-850 m, 2.V.1978, leg. Besuchet & Löbl (NMP). Syria: 1♂, Slumfeh, "Jabal al Musaryah" [=Nusairi range, = Jibal an Nasayriyah; 35°15'N, 36°17'E], 25.V.2002, leg. Skoupy (cAss); 1♂, Jabal al Ansariyah mts., E Latakia, Slinfeh env., 1500 m, 28.IV.2000, leg. Benedikt (NMP); 1♀, Hermon mts., Burqush env., 1800-2200 m, 5.V.2000, leg. Benedikt (NMP). Lebanon: 3♂♂, Ehmej, ca 34°08'N, 35°47'E, 1300 m, 25.V.-9.VI.2013, leg. Reuter (cFel, cAss); 1♂, Raifoun, 33°58'N, 35°42'E, 990 m, mixed oak forest, pitfall traps, 9.-12.VI.2016, leg. Reuter (cFel); 1♂, 27 km NE Beirut, Kfardebian env., ca 1100 m, mixed oak forest, 10-26.V.2016, leg. Reuter (cFel). Israel: 2♂♂, 1♀, Har Meron, 33°00'N, 35°25'E, 1110 m, forest, pitfall trap, 31.VII.2010, leg. Drees (cAss); 1♀, same data, but 13.XI.2010 (cAss); 1♂, Upper Galilee, Ziv'on, 33°01'N, 35°25'E, 710 m, open land, pitfall trap, 27.XI.2005 (cFel).

**C o m m e n t :** The original description is based on a unique male from "Suluhan, Toros" (SMETANA 1967). According to ANLAŞ (pers. comm.), this locality is in Adana province: Kozan, environs of Dağlıca village, ca 37°36'N, 35°50'E. The male listed in Tab. 1 and the additional material listed above represent the first records since the original description and the first records from Greece, Lebanon, Syria, and Israel (HERMAN 2001). The currently known distribution is illustrated in Map 2.

## Appendix

### I: Additional records of Staphylinidae from other East Mediterranean islands

#### 1. Cyprus

##### *Atheta opacicollis* (FAUVEL, 1878)

**A d d i t i o n a l r e c o r d :** Cyprus: 2♂♂, 5 km SW Lapti, 35°20'N, 33°07'E, 31.III.2015, leg. Kopetz (cApf, cAss).

**C o m m e n t :** The types and additional material was revised recently (ASSING 2015d). The species is widespread, but not very common in the Mediterranean region, from Northwest Africa to the Middle East. The above specimens represent the first record from Cyprus.

#### 2. Rhodos

##### *Bledius fassor* HEER, 1839

**A d d i t i o n a l r e c o r d :** Rhodos: 1 ex., 5 km W Kolumbia, 14.V.2013, leg. Ziegler (cAss).

**C o m m e n t :** This widespread species had not been recorded from Rhodos (ASSING 2013b).

##### *Namunia myrmecophila* REITTER, 1884

**A d d i t i o n a l r e c o r d :** Rhodos: 1 ex., Embonas, Attaviros, 700 m, 15.IV.1999, leg. Meybohm (cBra).

Comment: The above specimen was not listed in ASSING (2013b). For additional comments see the section on Lesbos below.

### 3. Samos

#### ***Aleochara haematoptera* KRAATZ, 1858**

Additional record: Samos: 1 ex., Mili env., Imbrasos river, 5.IV.2008, leg. Rossi (cAss).

Comment: This common and widespread species was previously unknown from Samos (ASSING 2015c).

#### ***Tetralaucopora longitarsis* (ERICHSON, 1839)**

Additional record: Samos: 20 exs., Mili env., Imbrasos river, 5.IV.2008, leg. Rossi (cAss, MNHUB).

Comment: The above specimens represent the first record from Samos (ASSING 2015c).

#### ***Bledius frisius* LOHSE, 1978**

Additional record: Samos: 2 exs., Psili Ammos, 29.IV.2008, leg. Rossi (cAss).

Comment: *Bledius frisius* had been reported from Samos before (ASSING 2015c).

#### ***Bledius furcatus* (OLIVIER, 1811)**

Additional record: Samos: 127 exs., Psili Ammos, 29.IV.2008, leg. Rossi (cAss, MNHUB).

Comment: This species was already known from Samos (ASSING 2015c).

#### ***Bledius unicornis* (GERMAR, 1825)**

Additional record: Samos: 2 exs., Psili Ammos, 29.IV.2008, leg. Rossi (cAss, MNHUB).

Comment: *Bledius unicornis*, too, was already known from Samos (ASSING 2015c).

#### ***Stenus maculiger* WEISE, 1875**

Additional record: Samos: 2 exs., Mili env., Imbrasos river, 5.IV.2008, leg. Rossi (cAss).

Comment: This species had been recorded from Samos before (ASSING 2015c).

#### ***Domene stilocina* (ERICHSON, 1840)**

Additional record: Samos: 1 ex., Mili env., Imbrasos river, 5.IV.2008, leg. Rossi (cAss).

Comment: *Domene stilocina* was already known from Samos (ASSING 2015c).

#### ***Philonthus quisquiliarius* (GYLLENHAL, 1810)**

Additional record: Samos: 2 exs., Mili env., Imbrasos river, 5.IV.2008, leg. Rossi (cAss).

Comment: The above specimens represent the first record from Samos (ASSING 2015c).

***Quedius job* COIFFAIT, 1963**

Additional record: Samos: 1 ex., Mili env., Imbrasos river, 5.IV.2008, leg. Rossi (cAss).

Comment: This species is reported from Samos for the first time (ASSING 2015c).

***Xantholinus rufipennis* ERICHSON, 1839**

Additional record: Samos: 1 ex., Mili env., Imbrasos river, 5.IV.2008, leg. Rossi (cAss).

Comment: *Xantholinus rufipennis* had been recorded from Samos before (ASSING 2015c).

**4. Lesbos**

***Namunia myrmecophila* REITTER, 1884**

Additional record: Lesbos: 4 exs., Olymbos, 39°04'N, 26°21'E, 860 m, 20.III.2005, leg. Lompe & Meybohm (cBra).

Comment: According to SCHÜLKE & SMETANA (2015), this species had been reported only from Turkey. ASSING (2013b), however, had recorded it also from the Greek island Rhodos.

***Paratychus mendax* (KIESENWETTER, 1858)**

Additional record: Lesbos: 3 exs., Megalolimni, 39°06'N, 26°20'E, 24.III.2005, leg. Lompe & Meybohm (cBra).

Comment: According to SCHÜLKE & SMETANA (2015), the distribution of *P. mendax* ranges from the Balkans to Turkey and Cyprus. The above specimens represent the first record from Lesbos.

**II: Carabidae collected in Kos**

by Thomas FORCKE

Aside from Staphylinidae, altogether 177 specimens of Carabidae belonging to 29 species, 27 of them positively identified, were collected during the field trip in December 2016 (Tab. 2). Two species belong to groups currently under revision (*Metadromius* sp.) or to be revised in the future (*Tapinopterus* sp. aff. *ganglbauerianus*). None of the positively identified species recorded from Kos is island-endemic; all of them are distributed also in Turkey. As many as eight species are not listed for the Aegean Islands in ARNDT et al. (2011): *Brachinus beryensis*, *B. ejaculans*, *B. nigricornis*, *B. plagiatus*, *Chlaenius aeneocephalus*, *Paraphonus mendax*, *Pterostichus strenuus*, *Syntomus pallipes*.

The species in Tab. 2 are listed in alphabetical order. For details regarding the localities, dates, circumstances of collection, etc. see Tab. 1.

**Tab. 2:** Carabidae collected in Kos in December 2016. In the localities column, the number of specimens is given in parentheses behind the locality number (or letter).

Species	Localities/samples
<i>Brachinus berytensis</i> REICHE & SAULCY, 1855	A(11), A1(20)
<i>Brachinus bodemeyeri</i> APFELBECK, 1904	18(8)
<i>Brachinus crepitans</i> (LINNAEUS, 1758)	A(6), A1(1)
<i>Brachinus ejaculans</i> FISCHER VON WALDHEIM, 1828	A(5), A1(2)
<i>Brachinus nigricornis</i> GEBLER, 1829	A(4), A1(2)
<i>Brachinus plagiatus</i> REICHE, 1868	A(4), A1(2)
<i>Broscus nobilis</i> (DEJEAN, 1828)	18(2), 18a(1)
<i>Carabus coriaceus cerisyi</i> DEJEAN, 1826	6(2), 13(1), 18a(1), 19(2), A1(2)
<i>Calathus longicollis</i> MOTSCHULSKY, 1865	6(2), 18(2), A(1)
<i>Chlaenius aeneocephalus</i> DEJEAN, 1826	A(1)
<i>Distichus planus</i> (BONELLI, 1813)	A1(4)
<i>Leistus rufomarginatus</i> (DUFTSCHMID, 1812)	14(1)
<i>Licinus silphoides</i> (P. ROSSI, 1790)	C(2)
<i>Metadromius</i> sp.	17(1)
<i>Microlestes luctuosus</i> HOLDHAUS, 1904	14b(1), 19a(1)
<i>Nebria brevicollis</i> (FABRICIUS, 1792)	A(1)
<i>Olisthopus fuscatus</i> DEJEAN, 1828	A(1), A1(1)
<i>Ophonus subquadratus</i> (DEJEAN, 1829)	6(1), 18(1)
<i>Paradromius linearis</i> (OLIVIER, 1795)	14b(1)
<i>Parophonus mendax</i> (P. ROSSI, 1790)	A1(1)
<i>Philorhizus notatus</i> (STEPHENS, 1827)	17(1)
<i>Pterostichus strenuus</i> (PANZER, 1796)	6(1)
<i>Scybalicus oblongiusculus</i> (DEJEAN, 1829)	18(1)
<i>Siagona europaea</i> DEJEAN, 1826	18a(1)
<i>Syntomus pallipes</i> (DEJEAN, 1825)	17(1)
<i>Tapinopterus</i> sp. aff. <i>ganglbauerianus</i> (LUTSHNIK, 1915)	18(16), 18a(11)
<i>Trechus asiaticus</i> JEANNEL, 1927	13(1), 14(1), 14a(2), 16(1), 18(2), 19a(1)
<i>Trechus crucifer</i> PIOCHARD DE LA BRULERIE, 1876	10(2), 13b(1), 14(16), 15(5), 16(5), 17(1), 19a(1)
<i>Zabrus graecus orientalis</i> APFELBECK, 1904	9(1), 18(2), 19(2), 20(3)

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## Zusammenfassung

Die Determination von 567 Staphyliniden, die im April 2012 und im Dezember 2016 auf der griechischen Insel Kos gesammelt wurden, ergab 54 Arten, darunter fünf Erstnachweise für Griechenland. Einer davon ist *Quedius curtidens* SMETANA, 1967, eine Art, die zuvor nur von der Typuslokalität in der türkischen Provinz Adana bekannt war und die außer von Kos auch aus dem Libanon, aus Syrien und aus Israel gemeldet wird. Die Verbreitung von *Q. curtidens* wird anhand einer Karte illustriert. Ein Katalog der derzeit von Kos bekannten Staphylinidenarten wird erstellt. Die Fauna umfasst insgesamt 58 Arten, weist erwartungsgemäß nahe Beziehungen zu der der nahegelegenen Südtürkei auf und setzt sich vor allem aus in der Westpaläarktis weit verbreiteten (38 %), ostmediterranen (38 %), südanatolischen (11 %) und im Mittelmeergebiet weit verbreiteten (7 %) Arten zusammen. In einem Anhang werden Nachweise von 15 Arten von Zypern, Rhodos, Samos und Lesbos gemeldet. Darüber hinaus wird eine Liste mit 29 im Dezember 2016 auf Kos gesammelten Carabidenarten erstellt; acht dieser Arten werden erstmals für die Ägäischen Inseln nachgewiesen.

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